Rocky Flats Citizens Advisory Board



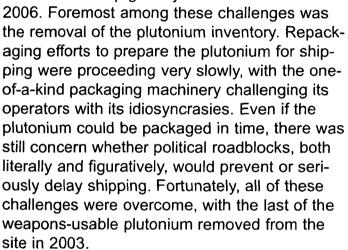
ADMIN RECORD

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Letter from the Chair

hat a difference a couple of years can make. That is my observation when I returned as a member of the Board in 2004, following a two-year sabbatical. When I left at the end of 2001, Rocky Flats still faced many difficult challenges to attain its cleanup goal by the end of



At the end of 2001, most of the former plutonium production buildings were still standing with the internal decontamination work just underway. In 2004, railroad cars were lining up to carry away the debris as these buildings were knocked down. Most of the support buildings at the site also have been removed, changing the site's landscape from the bustling aura of a small city to a vista of open spaces. For an infrequent visitor to the site such as me, it is easy to become disoriented without the familiar landmarks that once dominated the site.

When I left in 2001, the Department of Energy and the regulatory agencies were just concluding their negotiations to establish revised cleanup levels for the site. These negotiations resulted in greater surface soil cleanup in exchange for leaving more subsurface contamination behind. Fortunately, this trade-off has resulted in much greater removal of contaminated surface soil that posed the greatest risk



of spreading contamination via the air and water that leaves the site. A surprising benefit of these negotiations was that far less than anticipated subsurface contamination, especially that associated with the underground pipes that carried plutonium-bearing liquids between buildings, was found.

Today, work at the site has progressed at such a pace that projections now show that the cleanup work will be done a year ahead of schedule and far below the anticipated cost. The work has also been done safely. There still have been some glitches, however. Late in 2004, the site discovered americium contamination in surface water, whose source was traced back to an area near one of the now demolished buildings. There have been other water quality problems associated with soil disturbances at the site. The Board will continue to track these water quality issues in 2005.

I was honored to be re-elected Board Chair at the end of 2004, a position I also held for two terms beginning in 1999. My goal is to help lead the Board through the end of its own mission of providing advice and recommendations on the cleanup. Our work will draw to a close in 2006 when we finish our review and comment on the final paperwork that certifies that the cleanup is complete, and as management of the site transfers to the DOE Office of Legacy Management. We hope to leave behind a positive legacy of informed and active citizen involvement. Because Rocky Flats will never be 100 percent clean, it is important that opportunities for continued public involvement remain. Assuring a continued role for citizens will be one of our major goals as our own work comes to an end.

We hope you enjoy our report.

Recommendations

ulfilling its primary mission to provide advice and recommendations on issues related to the cleanup and closure of the Rocky Flats site, the Rocky Flats Citizens Advisory Board developed and approved 12 consensus recommendations in 2004. Summaries of each of these recommendations along with the responses they received are presented below. The full text of these recommendations can be viewed by visiting the Board's website at www.rfcab.org.

2004-1: Building 371 Demolition Plan

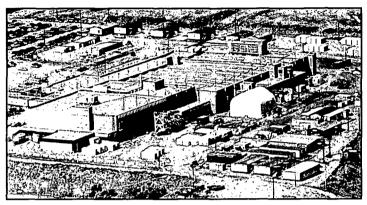
Building 371 was a plutonium processing facility at Rocky Flats. In its comments on the demolition plan for this building, the Board focused its concerns on the use of explosives, particularly the need for dust control and stringent air monitoring.

Rocky Flats eventually decided not to use explosives to demolish this building, choosing instead to rely on mechanical demolition. Rigorous dust control methods and independent air monitoring by the regulatory agencies will enhance public and worker safety.

2004-2: Long Term Stewardship Strategy Document

The Board provided comments on this document, which outlined the site's proposed long-term stewardship program. In its review of the document, the Board noted the need for layering of institutional controls to provide backup in case one or more controls failed. The Board also stressed the need for a trust fund to assure funding for future stewardship activities. Other issues the Board cited included the need for annual program reviews, contingency planning and emergency response, and post-closure public involvement.

The Board's comments were forwarded by the local Rocky Flats office to the Office of Legacy Management at DOE Headquarters. No further revisions of the document were released by year's end.



Building 371 will be the last of the former plutonium buildings torn down at the site.

2004-3: Comprehensive Conservation Plan / Environmental Impact Statement for the Rocky Flats National Wildlife Refuge

The U.S. Fish and Wildlife Service prepared the draft plan describing alternatives for future management of the Rocky Flats site when it becomes a national wildlife refuge. The alternatives varied primarily in the amount of public access that would eventually occur, ranging from no access to expanded recreational use of the site.

In its comments on the plan, the Board did not endorse a specific management alternative due to a lack of consensus on how much future public access should be allowed. The Board did, however, express its overall desire for the future management of the refuge. Items mentioned by the Board included positions that no dogs should be allowed and that no public motorized vehicles be used on trails. The Board also voiced its support for ecological restoration of the site, as well as the need for a clearly demarcated boundary separating lands retained by DOE and those that would be turned over to the

refuge. The Board also expressed concerns about potential mining activities at the site. In addition, the Board asked that any refuge interpretive center be combined with a site museum and reading room and also stressed the need for a strong environmental education program.

In its final plan, the Fish and Wildlife Service endorsed a management alternative that would focus on ecological restoration of the site while still allowing limited public access for recreational activities.



Heavy equipment was used to scrape surface soil contamination from more than 20 acres in the 903 Pad Lip Area.

2004-4: Cleanup of the 903 Pad Lip Area

The 903 Pad Lip Area is a broad area of windblown soil with plutonium contamination. The site proposed to remove surface soil contamination and then revegetate the area.

The Board endorsed the cleanup proposal but noted concerns about the environmental sampling program. The Board also expressed concerns about contaminant migration and asked for sediment sampling in the nearby water drainages. Other concerns mentioned were the need for the site to consult with the Fish and Wildlife Service on revegetation and the need for deeper soil cleanup in areas prone to land-slides.

In the response to the Board's comments, the site included additional information about soil

sampling in the project document and defended its sampling efforts, stating they met or exceeded a 95 percent confidence level. The site provided references to where additional information about sediment monitoring could be found and also stated that remediation of the water drainages, in particular the C-Series ponds, would be addressed in a separate plan. The project planners also stated they had consulted with and received assurances from Fish and Wildlife concerning the efficacy of the revegetation plan.

2004-5: Environmental Assessment for Pond and Land Configuration

In this document, the site analyzed its proposals for recontouring the land surfaces and water drainages once remediation activities are complete.

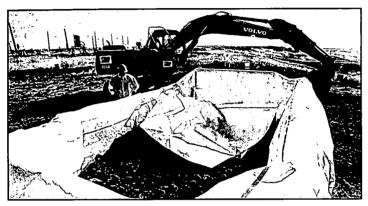
The Board's primary concern with the assessment was that it was premature, stating that such decisions cannot be made until remediation activities are complete. The Board also expressed concern that it had not seen a specific proposal for remediating the site ponds. Another concern was that the document only included two of the three major site drainages. Other comments were made about specific monitoring, maintenance, and management activities associated with the ponds that are part of the drainages. Ultimately, the Board would like to see the ponds eliminated and natural flows established in the water drainages.

In response, the site said it was completing the assessment in advance of completing the remediation activities to ensure that the proposed activities could begin as soon as possible after remediation. The Board was assured that if post-remediation conditions required any amendments to the assessment, it would be revised and released for further public comment. In response to the concern that only two

(continued on following pages)

Recommendations

drainages were covered, the site noted that the other drainage would be covered under separate planning documents. The site also recognized the Board's concerns regarding other specific monitoring and maintenance issues and advised that these issues were beyond the scope of the assessment and would be addressed in a more detailed manner in other plans.



Soil from the 903 Pad Lip Area was placed in large bags and loaded into rail cars for shipment to Envirocare in Utah.

2004-6: Support for U.S. Fish and Wildlife Service Proposal for Future Demarcation of DOE-Retained Lands

When Rocky Flats becomes a National Wildlife Refuge, portions of the property will remain in control of the Department of Energy because of residual contamination or the need to protect infrastructure associated with the site's remediation effort. The U.S. Fish and Wildlife Service proposed to DOE and the regulatory agencies that a four-strand barbed wire fence be installed to separate DOE-retained lands from refuge lands and that other efforts be considered to distinguish the two properties.

The Board supported the proposal in a letter sent to DOE and the regulators.

DOE replied it would continue a dialogue with the community regarding these issues.

2004-7: Rocky Flats Site Wide Integrated Public Involvement Plan

The Board reviewed a preliminary draft of a public involvement plan that would cover the immediate period up until the time of the site's closure and transfer to the DOE Office of Legacy Management.

The Board offered editorial comments to improve the public's understanding of the document. The Board also asked for clarification on how this plan would tie-in to the post-closure public involvement program.

DOE responded that a revised plan would be available early in 2005 and that the Board's comments were being considered.

2004-8: Water Quality at Rocky Flats

At mid-year, the Board expressed concern about elevated plutonium levels in site surface water. The Board asked the site to provide information on what was being done to identify a source of this contamination and how it would be mitigated. The members also asked that remediation work in the onsite ponds that collect stormwater runoff be curtailed until the water quality issues were addressed.

In a detailed response, DOE reported that the water quality problems were due to erosion in areas disturbed by the remediation efforts. More stringent erosion control efforts were implemented and, as a result, water quality was returning to acceptable levels of contamination. The site also reported that the stormwater runoff was being diverted away from the ponds where the remediation efforts were underway.

2004-9: Rocky Flats Cold War Museum

In the federal legislation creating the future Rocky Flats National Wildlife Refuge, Congress

asked DOE to prepare a report on establishing a Rocky Flats Cold War Museum.

The Board offered comments to DOE to consider as it prepared the report. The Board asked that DOE consider use of Building 60 as a location for the museum, with the possibility of combining it with a reading room and any facilities associated with the refuge. The Board also urged that the museum focus not only on the Cold War heritage of the site, but also its past use as a ranching area and its unique ecology.

In a response, DOE stated that the Board's comments were being considered and that a draft report would be available for formal public comment later in the year.

2004-10: Report to Congress on the Rocky Flats Museum

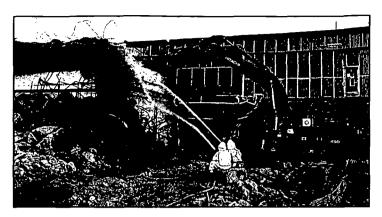
When the draft report was released, the Board expressed concern that DOE stated it supports the concept of a museum but did not want to provide any funding. The Board felt such statements were beyond the scope of what Congress asked DOE to do in analyzing the feasibility of a museum. Questions of funding should be left for later consultation with the community.

As these comments were submitted in December, a response was still pending at the end of the year.

2004-11: Independent Validation and Verification of Rocky Flats Cleanup

In 2005, Rocky Flats will undergo an independent assessment to ascertain whether the site has indeed been cleaned up. This assessment will be conducted by the Oak Ridge Institute for Science and Education (ORISE).

To ensure greater public confidence in the independent review, the Board developed a proposal for public involvement and submitted it to



Water is sprayed during building demolition to control dust and possible spread of contamination.

DOE.

DOE responded to the Board's proposal and accepted most of its ideas. DOE will co-sponsor with the Board a series of public meetings and work sessions. While the Board had asked that DOE maintain electronic copies of the project documents and reports on the Rocky Flats website, DOE felt that it would be better to maintain the independent nature of the review by having the materials posted on the Board's website. The Board agreed to DOE's suggestion and created a page on its website dedicated to the independent review.

2004-12: Establishment of a Local Stakeholder Organization for Rocky Flats

After the cleanup is done, Congress has mandated that DOE create a Local Stakeholder Organization (LSO) to ensure continued public involvement at Rocky Flats.

In order to ensure continuity in public involvement opportunities, the Board forwarded a position paper to DOE outlining its thoughts on how best to establish a Local Stakeholder Organization. The Board believes that the LSO should have a broad and diverse membership and should focus on the entire range of future site activities.

The Board's position paper was forwarded by the local DOE officials to the DOE Office of Legacy Management. A response was pending

Site Closure Progress

ocky Flats, once a linchpin in the nuclear weapons manufacturing complex, is fast becoming a field of open space with large plutonium buildings and other support structures falling at a rapid pace. Even Building 771, once dubbed the "most dangerous building in America," is gone, replaced by a gently sloping hillside of erosion mats and planted with seeds of the prairie.

There is no doubt that building decontamination and demolition took center stage in 2004, as workers labored to dismantle Rocky Flats. Building 707, where plutonium triggers were made, was toppled. Building 881 was decontaminated and imploded. Building 771 was taken down piece-by-piece and hauled away. The last glove-box, perhaps the most recognized symbol of the plant's Cold War mission, left Building 371 in November.

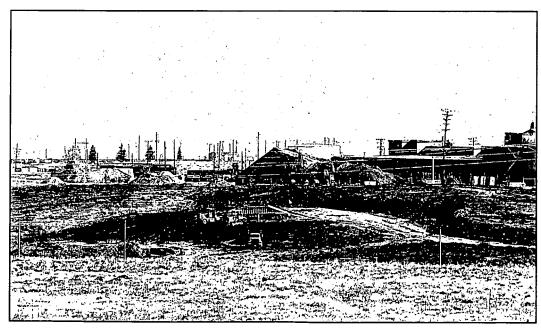
The figures for building demolition are impressive for 2004. Approximately 1.3 million square feet of building space were demolished; 187 structures knocked down; and 40 percent of the

plutonium-contaminated production space flattened.

Where once Rocky Flats looked like a small but bustling industrial complex, by the end of the year it began to look like a ghost town. In some places, it started to take on the feel of the mountain prairie it once was. The accelerated pace of demolition may mean the cleanup may be complete by the end of 2005, a full year earlier than expected.

A rail line constructed on the site provided a major catalyst for the increased pace of demolition and environmental remediation at the site. Loading of waste into rail cars is faster than with trucks, and one rail car can take the place of seven truckloads. Shipping by rail is expected to reduce the number of trucks on the highways by 5,000 and result in a cost savings of nearly \$27 million. The waste shipped by rail was sent to Envirocare in Utah.

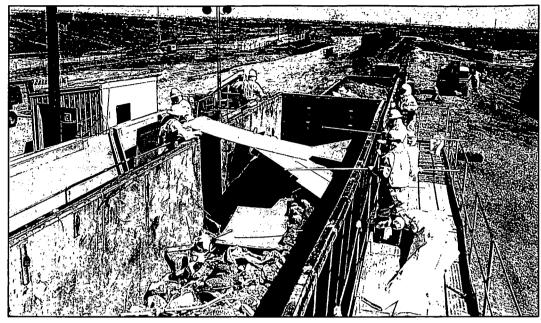
In other parts of the site, significant milestones in environmental restoration were achieved.



The open area in the foreground is the former site of Building 771.

■ Plutonium contamination in the surface of the 903 Pad Lip Area was removed from about 20 acres. Contamination in the Lip Area resulted when past remediation efforts at the 903 Pad loosened contaminated soil, allowing high winds to spread the dirt eastward over a large portion of the site.

Workers dug up and eliminated one of the largest sources of groundwater contamination at the site: a carbon tetrachloride plume. The area was contaminated in the 1970s when more than a thousand gallons of carbon tetrachloride spilled from a tank that had been overfilled. Workers removed about 1,200 cubic yards of dirt, digging to a depth of more than 20 feet to remove the plume. A special additive was included with the soil



Use of rail cars to ship contaminated building debris greately increased the speed of cleanup.

placed back into the hole to speed up the breakdown of any remaining contamination.

- Work on the Present Landfill began. The landfill, about 20 acres, will be covered with several layers of dirt, geotextile material, rock, and plastic.
- Sediments in the B-Series Ponds that were contaminated with plutonium and americium were removed.
- Significant progress was made on removal of process waste lines that once carried wastes and other solutions between the former production buildings.

Most notable is that this work has been carried out with an exemplary safety record, one of the best in the entire Department of Energy nuclear weapons complex. Also notable is the record amount of waste shipped from the site. More waste was shipped in 2004 than the five previ-

ous years combined.

With the success of demolition and remediation some problems did arise, including elevated levels of plutonium and americium contamination in surface water at the site. Site officials discovered that soil disturbances caused by buildings being torn down and the heightened pace of remediation had allowed erosion of contaminated soil into water drainages. To address this problem, an erosion control program was implemented.

Even with the surface water issues, 2004 was a productive year. As closure draws near, DOE and the community are working toward the transition to long-term stewardship and the conversion of large portions of the site to become a national wildlife refuge. At the end of 2004, it appeared more plausible that cleanup would be complete in 2005 and the Rocky Flats National Wildlife Refuge would indeed become a reality.

uture Public Involvement

y the end of 2006, the Rocky Flats Citizens Advisory Board will have completed its mission - providing advice and recommendations on the cleanup and closure of Rocky Flats - and will cease operation. The management responsibility for the site will transfer from the Department of Energy's Office of Environmental Management to the Office of Legacy Management.

Confident that public interest in the site will continue after this transfer is made, the Board began to discuss how best to make certain that opportunities for public involvement continue into the future. As a result of these discussions, on June 26, 2004, the Board sponsored a daylong public workshop on future public participation at Rocky Flats. Participants in the workshop included Board members and others in the community. Also attending were representatives from the DOE Office of Legacy Management in Washington, D.C. and Grand Junction, Colorado.

The workshop was structured with small group discussions where participants first outlined their concerns about the site and future public participation needs. They then discussed ways that these concerns and needs could be addressed. At the conclusion of the workshop, the small groups got together and shared their results. The results were collected and assembled into a workshop summary that was widely distributed.

Some of the major workshop conclusions included the following ideas:

■ There will continue to be a need for public meetings where updates on the site activities can be presented. These meetings would also allow for sharing of environmental monitoring data and other important information. The meetings should be held once a year, at a mini-



Community members hold a discussion at the June 2004 workshop on future public participation at Rocky Flats.

mum, with the possibility of having more frequent meetings if there is interest or if a "special occurrence" happens at the site. The meetings should be held at a time and location convenient to the general public.

- The site should continue to produce information that will be made available in both written and electronic formats. Surveillance summaries, monitoring data, project updates, and an annual newsletter are examples of the types of information that should be considered.
- The Department of Energy should organize and fund a stakeholder group that would serve as a major focus for public participation at the site. This group should be diverse in its membership. Representational categories that should be considered for membership include local governments, public interest groups, site neighbors, former site workers, students, health professionals, educators, and adjacent landowners.

At the conclusion of the workshop, representatives from the Office of Legacy Management thanked the participants for the depth of their discussions and stated they had heard many good ideas that would be considered as programs for future public participation at the site were developed.

Members and Staff

Board Members (Representational Category)

Suzanne Allen - Vice President for SunCorp Corporate Credit Union; resident of Westminster (*Administration/Business*)***

Gerald DePoorter - Emeritus Professor at Colorado School of Mines; resident of unincorporated Boulder County (*Academic Institution*)***

Joe Downey (Vice-Chair) - Geohydrologist for Downey and Gutentag; resident of Arvada (*Technical*)*

Anne Fenerty - Sierra Club; resident of Boulder (*Environmental Organization*)**

Earl Gunia - Retired Naval officer; resident of Littleton (*Technical*)*

Erin Hamby - Rocky Mountain Peace and Justice Center; resident of Boulder (*Public Interest Group*)*

Victor Holm (Chair) - Geological Engineer; resident of Lakewood (*Technical*)*

Bill Kossack (Secretary) - Sierra Club; resident of Westminster (*Environmental Organization*)*

Mary Mattson - Chemistry Instructor at Front Range Community College; resident of Broomfield (*Academic Institution*)*

Mike Maus - President of Mike Maus Associates; resident of Arvada (Community)*

Bill McNeill - Retired Environmental Consultant; resident of Lafayette (*Technical*)*

Sean Rea - Student at the University of Colorado at Boulder; resident of Boulder (*Student*)**

Andrew Ross (Treasurer) - Water Quality Specialist for the State of Colorado; resident of Arvada (*Community*)*

Phil Tomlinson - Environmental and Engineering Consultant; resident of Thornton (*Technical*)***

Staff Members:

Ken Korkia - Executive Director*

Patricia Rice - Program Coordinator*

Ex Officio Representatives:

Mark Aguilar - U.S. Environmental Protection Agency*

Steve Gunderson - Colorado Department of Public Health and Environment*

Joe Legare - U.S. Department of Energy-Rocky Flats Field Office*

John Rampe - U.S. Department of Energy-Rocky Flats Field Office*

Dean Rundle - U.S. Fish and Wildlife Service*

Scott Surovchak - U.S. Department of Energy-

^{*} Served the entire year

** Left the Board during 2004

*** New member or rejoined the Board during 2004

Financial Statement

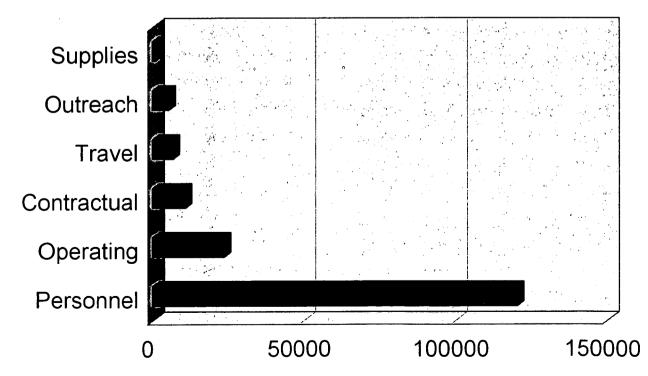
Revenue

Grant funds from the Department of Energy	\$167,835
Total Revenue	\$167,835

Expenses

Personnel	\$120,122
Operating	23,596
Contractual	10,908
Travel	6,801
Outreach	5,388
Supplies	1,020
Total Expenses	\$167 835

Breakdown of Expenses



(for the period January 1, 2004 through December 31, 2004)

Balance Sheet

Assets

Current Assets	
Cash Prepaid Expenses	\$93,542 -0-
Total Assets	\$93,542
Liabilities and Net Assets	
Liabilities	
Accounts Payable	\$ 378
Deferred Grant Revenue	87,686
Compensated Absences	5,478
Total Current Liabilities	\$93,542
Net Assets	
Unrestricted	\$ -0-
Total Liabilities and Net Assets	\$93,542

(As of December 31, 2004)

2005 Work Activities

n 2004, the Board developed a comprehensive transition work plan outlining its scope of activities to parallel the closure progress at Rocky Flats, as well as the eventual transition of the site from the Office of Environmental Management to the Office of Legacy Management within the Department of Energy. When that transition is complete, the Board's mission as advisors to the Office of Environmental Management also will be complete.

The Board's 2005 work plan follows the same outline of activities established in 2004. These activities are categorized into work scope focus areas as outlined below.

Site Cleanup and Closure. In this focus area. the Board concentrates on the environmental restoration, building demolition and waste management activities at the site. Environmental restoration activities that the Board will track in 2005 include the 903 Pad Lip Area, the former process waste lines, the carbon tetrachloride groundwater plume source removal, the Present and Original Landfills, groundwater remediation, and the B-series ponds remediation. Major demolition projects will include most of the former plutonium production facilities such as buildings 707, 771, 776, and 371. The Board also will track the site's progress in completing its remaining shipments of transuranic waste to the Waste Isolation Pilot Plant in New Mexico, the rail shipments of low-level waste to Envirocare in Utah. and the final disposition of the remaining "orphan" wastes at the site. In 2005, the Department of Energy has commissioned an independent review of the soil cleanup at the site. The Board will take an active role in overseeing this activity and sharing information about it with the community.

Regulatory Closure. Once the physical work is complete at the site, the Department of Energy and the regulators will complete the final studies and reports necessary to ensure that the site is

cleaned up and that no environmental or human health risks remain. The major documents or activities the Board will focus on in this area include the Corrective Action Decision / Record of Decision, the Comprehensive Risk Assessment, the Remedial Investigation / Feasibility Study, the Post-Closure Regulatory Agreement, and the final EPA Certification.

Post-Closure Planning. There are several areas the Board will concentrate on related to post-closure activities at the site. These include planning for the future Rocky Flats National Wildlife Refuge, the transition of the site between the Department of Energy Offices of Environmental Management and Legacy Management, and post-closure public involvement. The Board hopes to ensure a smooth transition of public involvement opportunities through its involvement in the creation of a Local Stakeholder Organization, which will be sponsored by the Office of Legacy Management.

Outreach and Education. The Board will continue its public outreach through workshops and meetings, written materials such as press releases and letters to the editor, and maintenance of its website.

National Participation. The Board will continue its activities as part of the national Environmental Management Site Specific Advisory Board by sending representatives to meetings and workshops.

To accomplish its activities, the Board holds two monthly meetings. The first of these is the formal monthly Board meeting, while the second is a work session known as Committee Night. Committee Night allows the members to hold in-depth discussions and develop recommendations, which it then formally approves at its monthly Board meetings.

About the Board

The Rocky Flats Citizens Advisory Board is a federal advisory committee that is part of a larger national organization called the Environmental Management Site Specific Advisory Board. There are eight other citizen advisory boards at the various U.S. Department of Energy former nuclear weapons sites across the country. Organized as a 501(c)(3) non-profit corporation, the Rocky Flats Citizens Advisory Board has been in operation since 1993. The Board is funded through a grant from the Department of Energy. Since its inception, the Board has produced more than 100 consensus recommendations on various aspects of the management, cleanup, and closure of the Rocky Flats site. All of its members are volunteers supported by two paid staff persons.

Mission Statement

The Rocky Flats Citizens Advisory Board, a nonpartisan, broadly representative, independent advisory board with concerns related to Rocky Flats activities, is dedicated to providing informed recommendations and advice to the agencies (Department of Energy, Colorado Department of Public Health and Environment, and the Environmental Protection Agency), government entities, and other interested parties on policy and technical issues and decisions related to cleanup, waste management, and associated activities. The Board is dedicated to public involvement, awareness, and education on Rocky Flats issues.

For More Information

Rocky Flats Citizens Advisory Board 12101 Airport Way, Unit B Broomfield, CO 80021

> Phone: (303) 966-7855 Fax: (303) 966-7856 Email: rfcab@indra.com Web site: www.rfcab.org

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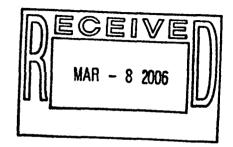
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The Rocky Flats Citizens Advisory Board is dedicated to public involvement, awareness, and education on Rocky Flats issues.